

REMARKS

Claims 1, 2, 4-7 and 9-17 are pending. By this Amendment, claims 3, 8, 18 and 19 are canceled without prejudice or disclaimer and claims 1, 4, 5, 7, 15 and 16 are amended. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Claims 1-17 were rejected under 35 U.S.C. § 103(a) over Machino et al. (WO 98/38140, which is equivalent to U.S. Patent 6,855,398) in view of Dieck et al. (U.S. Patent 4,026,839). The rejection is respectfully traversed.

MPEP § 2141.01(a) states: "The examiner must determine what is 'analogous prior art' for the purpose of analyzing the obviousness of the subject matter at issue. 'In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.'" MPEP § 2141.01(a) further states: "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."

It is respectfully submitted that the reference to Dieck et al. is non-analogous prior art as it is neither in Applicant's field of endeavor, carbon fiber felts and heat insulating materials formed by carbon fiber felts, nor reasonably pertinent to the particular problem(s) with which Applicant was concerned, for example as discussed on page 1, line 11 through page 3, line 2. Dieck et al. disclose blends of polyphosphazenes and silicone polymers useful as fire retardant coatings, sheets, films or flexible or semi-rigid foams.

As Dieck et al. are non-analogous, they may not serve as the basis for a rejection of the claimed invention.

MPEP § 2143 states: "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

It is respectfully submitted that even assuming that Dieck et al. are analogous prior art, which Applicant does not concede, the combination of Machino et al. and Dieck et al. does not present a *prima facie* case of obviousness because the combination does not include

all the limitations of claim 1 and because there is no motivation or suggestion, either explicitly or implicitly in the references, or in the knowledge generally available to one of ordinary skill in the art, to combine the references.

Claim 1 recites a carbon fiber felt comprising a carbon fiber aggregate, and a binder resin to bond the carbon fiber constituting said aggregate, wherein the felt contains a fire resistant agent comprising a silicone compound and an inorganic oxide. The silicone compound comprises at least one member selected from the group consisting of an organosiloxane and a silane, and the proportion of the fire resistant agent is 1 to 30 parts by weight relative to 100 parts by weight of the carbon fiber. Support for claim 1 may be found, for example, on page 12, line 8 through page 13, line 1, and page 15, lines 16-20.

The combination of Machino et al. and Dieck et al. fails to include a fire resistant agent comprising a silicone compound and an inorganic oxide, the silicone compound comprising at least one member selected from the group consisting of an organosiloxane and a silane, and the proportion of the fire resistant agent is 1 to 30 parts by weight relative to 100 parts by weight of the carbon fiber.

As acknowledged by the Examiner on page 3, lines 1-2, of the Office Action, Machino et al. fail to disclose or suggest a fire resistant agent. Machino et al. thus fail to disclose or suggest the claimed fire resistant agent comprising a silicone compound and an inorganic oxide. As Machino et al. do not disclose or suggest a fire resistant agent, Machino et al. also can not disclose or suggest the claimed proportion of the fire resistant agent to the weight of the carbon fiber.

Although Dieck et al. disclose polyphosphazene polymer/silicone rubber blends as a fire retardant, including poly(organosiloxane) polymers that are crosslinkable, Dieck et al. do not disclose or suggest a fire resistant agent comprising a silicone compound and an inorganic oxide. Furthermore, Dieck et al. fail to disclose or suggest the claimed proportion of the fire resistant agent to the weight of the carbon fiber. Therefore, the combination of Machino et al. and Dieck et al. fails to include all the claim limitation and fails to present a *prima facie* case of obviousness.

It is further respectfully submitted that there is no motivation or suggestion, or reasonable expectation of success, to combine Machino et al. and Dieck et al. The blends of polyphosphazenes and silicone are useful as fire retardant coatings, sheets, films or foams. There is no disclosure or suggestion of their use in a carbon felt that comprises a carbon fiber aggregate and a binder resin. There is also no disclosure or suggestion by Dieck et al. that the

blends could be used as a fire resistant agent in a carbon felt that comprises an aggregate and a binder resin.

Although it is respectfully submitted that the combination of Machino et al. and Dieck et al. fails to present a *prima facie* case of obviousness, and Applicant is not required to submit evidence of secondary considerations to rebut the rejection, the claimed invention provides results that would not be expected by either Machino et al. or Dieck et al., alone and/or in combination.

Machino et al. disclose wool-like carbon fiber aggregate and thermosetting resin and is similar to comparative examples 1 and 2 of the instant application. As shown in Tables 1 and 2 of the instant application, materials such as those disclosed by Machino et al. have a fire resistance of 2 to 6 minutes. On the other hand, as evidenced by examples 10-15 as shown in Table 4 of the instant application, carbon fiber felts having a fire resistant agent comprising a silicone compound and an inorganic oxide has a fire resistance of 8 to 10 minutes. As Dieck et al. do not disclose or suggest fire resistant agents for a carbon felt, and only disclose the blends of polyphosphazenes and silicone are useful as fire retardant coatings, sheets, films or foams, one of ordinary skill in the art would not expect the blends of Dieck et al. to provide improved fire resistance in carbon felts.

Claims 2, 4-7 and 9-17 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim 1 and for the additional features recited therein.

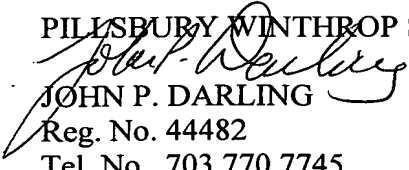
Reconsideration and withdrawal of the rejection over Machino et al. in view of Dieck et al. are respectfully requested.

In view of the above remarks, it is respectfully submitted that all of the claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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